

What is claimed is:

- 1 1. A method for promoting temporal resolution of sequential images, comprising:
 - 2 choosing a first visual frame of a train of sequential images and splitting it
 - 3 into a plurality of visual blocks according to a predetermined value;
 - 4 choosing a second visual frame of the train of sequential images;
 - 5 searching the second visual frame for mostly resembling respective visual
 - 6 blocks corresponding to every visual block in the first visual frame;
 - 7 estimate the vector displacement of respective corresponding visual blocks
 - 8 of the first and the second visual frame;
 - 9 rebuilding a visual frame according to the vector displacement obtained
 - 10 above and estimate the respective pixel values of respective corresponding
 - 11 visual blocks of the first and the second visual frame at a time point and
 - 12 combining the pixel values of visual blocks to create the rebuilt visual frame;
 - 13 applying a median-value-filtering procedure upon the rebuilt visual frame;
 - 14 and
 - 15 applying a spatial low-pass filtering procedure upon the rebuilt visual frame,
 - 16 which has undergone the previous procedure.
- 1 2. The method according to claim 1, wherein the first visual frame is the current
- 2 visual frame and the second visual frame is a past visual frame previous to the
- 3 current one.
- 1 3. The method according to claim 1, wherein the method for rebuilding a visual
- 2 frame comprises:
 - 3 creating a first interpolation visual frame basing on the vector displacement
 - 4 estimation of the corresponding visual blocks in the first interpolation visual
 - 5 frame and the first visual frame and that in the first interpolation visual frame

and the second visual frame to thereby induce the pixel value of every visual block in the first interpolation visual frame;

creating a second interpolation visual frame having its pixel value of each visual blocks induced basing on the mean pixel value of the first and the second visual frame; and

creating the rebuilt visual frame, which is composed of the mean pixel value of each visual block in the first and the second interpolation visual frame.

4. The method according to claim 1, wherein the media-value-filtering procedure comprises:

comparing the pixel value of corresponding blocks in the first visual frame, the second visual frame, and a rebuilt visual frame so as to take a pixel value of each block set as a median value; and

performing a mean operation of the median pixel value of each block and the pixel value of each block of the rebuilt visual frame and outputting the mean value after operation.

5. The method according to claim 1 further comprising:

dividing the visual blocks of the rebuilt visual frame after motion compensation into a first and a second visual block set and performing a median-value-filtering procedure to the first visual block set, wherein the first visual block set is variable basing on image movement of article in the visual frames incurred by the blocks in the first and the second visual frame; and the second visual block set is a block set without variation of corresponding visual blocks in the first and the second visual frame.